

IN THE DRAWINGS

Figure 3C is objected to because in decision block 344, “laser” should be changed to “transceiver”. Accordingly, Applicant has amended Figure 3C to replace “laser” with “transceiver” in block 344. A replacement sheet with the amended Figure 3C is respectfully submitted with the current response.

Attachment: Replacement Sheet, Figure 3C

REMARKS

Applicant respectfully requests reconsideration of this application. Claims 1-19 were pending. Claims 1, 8, 10, 12-13, 15-16, and 18 have been amended. Claims 2, 9, 14, and 17 have been canceled without prejudice. Claims 1, 3-8, 10-13, 15-16, and 18-19 remain pending.

Claim Objections

The Office Action objected to claims 10, 12-13, 15-16, and 18 based on a spelling of “multiplexor” and “demultiplexor.” Applicant has made non-narrowing amendments to change the spelling.

Rejections Under 35 U.S.C. § 102

Claims 1-2 and 8-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,970,201 of Anthony et al. (“Anthony”). Applicant respectfully traverses the rejection. Claim 1 as amended to substantially include the limitations of the now canceled claim 2 sets forth “diverting a predetermined portion of each of a plurality of optical signals” and “using a variable optical attenuator to adjust a power level of a remaining portion of each of the plurality of optical signals.” In contrast, Anthony fails to disclose the above limitations.

According to Anthony, the taps 25-28 divert a portion of each of the optical signals from the optical fibers 21-24 to the photodetectors 29-32 and the remaining portion of each of the optical signals is output via the optical fibers 21-24. The attenuators 17-20 adjust the optical signals carried along optical fibers 11-14. (Anthony, Figure 3; col. 4, ln. 27-33; 57-

64). The attenuators 17-20 do not adjust the remaining portion of each of the optical signals carried by the optical fiber 21-24. Therefore, claim 1 as amended is patentably distinguishable from Anthony for at least this reason. Applicant respectfully request withdrawal of the rejection on claim 1.

Claim 2 has been canceled without prejudice, thus, obviating the rejection.

Claim 8 as amended to substantially include the limitations of the now canceled claim 9 sets forth “a variable optical attenuator having a plurality of input ports and a plurality of output ports” and “a tap including a plurality of input ports coupled to said second plurality of ports of the switch fabric, a first plurality of output ports coupled to said plurality of input ports of the variable optical attenuator, and a second plurality of output ports coupled to said plurality of input ports of said plurality of photonic detectors such that each of said plurality of photonic detectors is optically coupled to a different one of said second plurality of ports.” In contrast, Anthony fails to disclose the above limitations.

According to Anthony, each of the taps 25-28 has two outputs, one being coupled to one of the photodetectors 29-32 and the other one being coupled to one of the optical fibers 21-24. None of the outputs of the taps 25-28 is coupled to the inputs of the attenuators 17-20. (Anthony, Figure 3; col. 4, ln. 27-33; 57-64). Therefore, claim 8 as amended is patentably distinguishable from Anthony for at least this reason. Applicant respectfully requests withdrawal of the rejection on claim 8.

Claim 9 has been canceled without prejudice, thus, obviating the rejection.

Claims 1-6, 8-9 and 11 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,801,679 of Koh et al. (“Koh”). Applicant respectfully traverses the rejection. Claim 1 as amended sets forth “diverting a predetermined portion of each of a

plurality of optical signals” and “using a variable optical attenuator to adjust a power level of a remaining portion of each of the plurality of optical signals.” In contrast, Koh fails to disclose the above limitations.

According to Koh, the optical pass-through waveguides 30 transfer a major portion of optical powers *without altering signal state nor interrupting signal transfer characteristics of pass-through optical signals*, while a small portion of optical powers from the same optical pass-through waveguides 30 are sampled and monitored by using signal branching structures 34, optical signal-tap waveguides 32, micromachined optical I/O couplers 48, and optical detectors 62. (Koh, col. 10, ln. 10-19; emphasis added). Koh does not disclose or suggest using a variable optical attenuator to adjust a power level of a remaining portion of each of the plurality of optical signals. Therefore, Koh fails to anticipate claim 1 for at least this reason. Applicant respectfully requests withdrawal of the rejection on claim 1.

Claim 2 has been canceled without prejudice, thus, obviating the rejection.

Claims 3-6 depend, directly or indirectly, from claim 1. Thus, having additional limitations, claims 3-6 are not anticipated by Koh for at least the reason discussed above with respect to claim 1. Applicant respectfully requests withdrawal of the rejection on claims 3-6.

Claim 8 as amended recites “a variable optical attenuator having a plurality of input ports and a plurality of output ports” and “a tap including a plurality of input ports coupled to said second plurality of ports of the switch fabric, a first plurality of output ports coupled to said plurality of input ports of the variable optical attenuator, and a second plurality of output ports coupled to said plurality of input ports of said plurality of photonic detectors such that each of said plurality of photonic detectors is optically coupled to a different one of said second plurality of ports.” In contrast, Koh fails to disclose the above limitations.

According to Koh, the outputs of the VOAs 210 are coupled to the inputs of the OCMs 220 (Koh, Figure 7). The inputs of the OCMs 220 are further coupled to the inputs of the taps 34. The outputs of the taps 34 are coupled to photodetectors 62 and the outputs of the OCMs 220. (Koh, Figures 2A-2B; col. 9, ln. 45 – col. 10, ln.19). Koh does not disclose a tap including a first plurality of output ports coupled to the plurality of input ports of the variable optical attenuator. For at least this reason, claim 8 is not anticipated by Koh. Withdrawal of the rejection is respectfully requested.

Claim 9 has been canceled without prejudice, thus, obviating the rejection.

Claim 11 depends from claim 8, and thus, includes the limitations set forth in claim 8. Therefore, claim 11 is not anticipated by Koh for at least the reason discussed above with respect to claim 8. Withdrawal of the rejection is respectfully requested.

Claims 1-6 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pub. 2004/0208574 of Kinoshita et al. (“Kinoshita”). Applicant respectfully traverses the rejection. Claim 1 as amended sets forth “diverting a predetermined portion of each of a plurality of optical signals” and “using a variable optical attenuator to adjust a power level of a remaining portion of each of the plurality of optical signals.” In contrast, Kinoshita fails to disclose the above limitations.

According to Kinoshita, the optical splitter 243 splits the optical signal into two portions, one of which being directed to the photodetector 245 and the other one being directed to the multiplexer 204. The VOA 242 in Kinoshita does not adjust the power level of the portion of the optical signal directed to the multiplexer 204. (Kinoshita, Figure 4B, para. [0099] and [0100]). Therefore, Kinoshita does not disclose “diverting a predetermined portion of each of a plurality of optical signals” and “using a variable optical attenuator to

adjust a power level of a remaining portion of each of the plurality of optical signals.”

Applicant respectfully requests withdrawal of the rejection.

Claim 2 has been canceled without prejudice, and thus, obviating the rejection.

Claims 3-6 depend, directly or indirectly, from claim 1. Thus, having additional limitations, claims 3-6 are not anticipated by Kinoshita for at least the reason discussed above with respect to claim 1. Applicant respectfully requests withdrawal of the rejection on claims 3-6.

Rejections Under 35 U.S.C. § 103(a)

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over “Anthony” as cited above. Applicant respectfully traverses the rejection. Claim 7 depends from claim 1 and thus, includes all limitations set forth in claim 1. For at least the reason discussed above with respect to claim 1, Anthony fails to disclose or suggest every limitation in claim 7. For at least this reason, claim 7 is not obvious over Anthony. Applicant respectfully requests withdrawal of the rejection.

Claims 1-5, 8-10, and 12-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,627,925 of Alferness et al. (“Alferness”) in view of “Anthony”. Applicant respectfully traverses the rejection. For the reasons discussed above with respect to independent claims 1 and 8, Anthony fails to disclose every limitation set forth in claims 1 and 8. Furthermore, Alferness merely discloses an optical cross-connect structure. (Alferness, Figure 3; col. 4, ln. 40-65). Alferness does not make up the deficiencies in Anthony. Thus, a combination of Alferness and Anthony does not include every limitation

set forth in independent claims 1 and 8. For at least this reason, independent claims 1 and 8 are patentable over Alferness in view of Anthony. Withdrawal of the rejection is respectfully requested.

For at least the reason discussed above with respect to claim 8, independent claims 13 and 16 are patentable over Alferness in view of Anthony. Withdrawal of the rejection is respectfully requested.

Claims 2, 9, 14, and 17 have been canceled without prejudice, thus obviating the rejection.

Claims 3-5, 10, 12, 15, and 18-19 depend, directly or indirectly, from claims 1, 8, 13, and 16, respectively. Thus, having additional limitations, claims 3-5, 10, 12, 15, and 18-19 are patentable over Alferness in view of Anthony. Withdrawal of the rejection is respectfully requested.

CONCLUSION

Applicant respectfully submits that the rejections have been overcome by the remarks, and that the pending claims are in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the pending claims be allowed.


To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. If any other petition is necessary for consideration of this paper, it is hereby so petitioned.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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